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OIPE

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/576,989

DATE: 05/31/2000  
TIME: 17:07:55

Input Set : A:\60294356.txt  
Output Set: N:\CRF3\05312000\I576989.raw

3 <110> APPLICANT: Rice III, Charles  
4 Blight, Keril  
6 <120> TITLE OF INVENTION: HCV Variants  
8 <130> FILE REFERENCE: 6029-4356  
C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/576,989  
C--> 11 <141> CURRENT FILING DATE: 2000-05-23  
13 <160> NUMBER OF SEQ ID NOS: 21  
15 <170> SOFTWARE: PatentIn Ver. 2.0  
17 <210> SEQ ID NO: 1  
18 <211> LENGTH: 21  
19 <212> TYPE: DNA  
20 <213> ORGANISM: Hepatitis C virus  
22 <400> SEQUENCE: 1  
23 ggcgacactc caccatagat c 21  
25 <210> SEQ ID NO: 2  
26 <211> LENGTH: 99  
27 <212> TYPE: DNA  
28 <213> ORGANISM: Hepatitis C virus  
30 <400> SEQUENCE: 2  
31 tggtaggcattccatcttagcccttggc tagtcacggc tagctgtgaa aggtccgtga gcccgtac 60  
32 tgcagagagt gctgtactg gcctctctgc tgatcatgt 99  
34 <210> SEQ ID NO: 3  
35 <211> LENGTH: 1985  
36 <212> TYPE: PRT  
37 <213> ORGANISM: Hepatitis C virus  
39 <400> SEQUENCE: 3  
40 Met Ala Pro Ile Thr Ala Tyr Ser Gln Gln Thr Arg Gly Leu Leu Gly  
41 1 5 10 15  
43 Cys Ile Ile Thr Ser Leu Thr Gly Arg Asp Arg Asn Gln Val Glu Gly  
44 20 25 30  
46 Glu Val Gln Val Val Ser Thr Ala Thr Gln Ser Phe Leu Ala Thr Cys  
47 35 40 45  
49 Val Asn Gly Val Cys Trp Thr Val Tyr His Gly Ala Gly Ser Lys Thr  
50 50 55 60  
52 Leu Ala Gly Pro Lys Gly Pro Ile Thr Gln Met Tyr Thr Asn Val Asp  
53 65 70 75 80  
55 Gln Asp Leu Val Gly Trp Gln Ala Pro Pro Gly Ala Arg Ser Leu Thr  
56 85 90 95  
58 Pro Cys Thr Cys Gly Ser Ser Asp Leu Tyr Leu Val Thr Arg His Ala  
59 100 105 110  
61 Asp Val Ile Pro Val Arg Arg Gly Asp Ser Arg Gly Ser Leu Leu  
62 115 120 125  
64 Ser Pro Arg Pro Val Ser Tyr Leu Lys Gly Ser Ser Gly Gly Pro Leu  
65 130 135 140  
67 Leu Cys Pro Ser Gly His Ala Val Gly Ile Phe Arg Ala Ala Val Cys  
68 145 150 155 160  
70 Thr Arg Gly Val Ala Lys Ala Val Asp Phe Val Pro Val Glu Ser Met

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71	165	170	175
73	Glu Thr Thr Met Arg Ser Pro Val Phe Thr Asp Asn Ser Ser Pro Pro		
74	180	185	190
76	Ala Val Pro Gln Thr Phe Gln Val Ala His Leu His Ala Pro Thr Gly		
77	195	200	205
79	Ser Gly Lys Ser Thr Lys Val Pro Ala Ala Tyr Ala Ala Gln Gly Tyr		
80	210	215	220
82	Lys Val Leu Val Leu Asn Pro Ser Val Ala Ala Thr Leu Gly Phe Gly		
83	225	230	235
85	240	245	250
86	Ala Tyr Met Ser Lys Ala His Gly Ile Asp Pro Asn Ile Arg Thr Gly		
88	255	260	265
89	Val Arg Thr Ile Thr Thr Gly Ala Pro Ile Thr Tyr Ser Thr Tyr Gly		
91	270	275	280
92	285	290	295
94	Ile Cys Asp Glu Cys His Ser Thr Asp Ser Thr Thr Ile Leu Gly Ile		
95	300	305	310
97	Gly Thr Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val		
98	315	320	325
100	Leu Ala Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn		
101	330	335	340
103	Ile Glu Glu Val Ala Leu Ser Ser Thr Gly Glu Ile Pro Phe Tyr Gly		
104	345	350	355
106	Lys Ala Ile Pro Ile Glu Thr Ile Lys Gly Gly Arg His Leu Ile Phe		
107	365	360	365
109	Cys His Ser Lys Lys Cys Asp Glu Leu Ala Ala Lys Leu Ser Gly		
110	370	375	380
112	Leu Gly Leu Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp Val Ser Val		
113	390	395	400
115	Ile Pro Thr Ser Gly Asp Val Ile Val Val Ala Thr Asp Ala Leu Met		
116	405	410	415
118	Thr Gly Phe Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys		
119	420	425	430
121	Val Thr Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr Ile Glu		
122	435	440	445
124	Thr Thr Thr Val Pro Gln Asp Ala Val Ser Arg Ser Gln Arg Arg Gly		
125	450	455	460
127	Arg Thr Gly Arg Gly Arg Met Gly Ile Tyr Arg Phe Val Thr Pro Gly		
128	465	470	475
130	480	485	490
131	495	490	495
133	Glu Arg Pro Ser Gly Met Phe Asp Ser Ser Val Leu Cys Glu Cys Tyr		
134	500	505	510
136	Asp Ala Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu Thr Ser Val		
137	515	520	525
139	Arg Leu Arg Ala Tyr Leu Asn Thr Pro Gly Leu Pro Val Cys Gln Asp		
140	530	535	540
142	His Leu Glu Phe Trp Glu Ser Val Phe Thr Gly Leu Thr His Ile Asp		
143	545	550	555
			560

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145 Leu Val Ala Tyr Gln Ala Thr Val Cys Ala Arg Ala Gln Ala Pro Pro  
146 565 570 575  
148 Pro Ser Trp Asp Gln Met Trp Lys Cys Leu Ile Arg Leu Lys Pro Thr  
149 580 585 590  
151 Leu His Gly Pro Thr Pro Leu Leu Tyr Arg Leu Gly Ala Val Gln Asn  
152 595 600 605  
154 Glu Val Thr Thr His Pro Ile Thr Lys Tyr Ile Met Ala Cys Met  
155 610 615 620  
157 Ser Ala Asp Leu Glu Val Val Thr Ser Thr Trp Val Leu Val Gly Gly  
158 625 630 635 640  
160 Val Leu Ala Ala Leu Ala Ala Tyr Cys Leu Thr Thr Gly Ser Val Val  
161 645 650 655  
163 Ile Val Gly Arg Ile Ile Leu Ser Gly Lys Pro Ala Ile Ile Pro Asp  
164 660 665 670  
166 Arg Glu Val Leu Tyr Arg Glu Phe Asp Glu Met Glu Glu Cys Ala Ser  
167 675 680 685  
169 His Leu Pro Tyr Ile Glu Gln Gly Met Gln Leu Ala Glu Gln Phe Lys  
170 690 695 700  
172 Gln Lys Ala Ile Gly Leu Leu Gln Thr Ala Thr Lys Gln Ala Glu Ala  
173 705 710 715 720  
175 Ala Ala Pro Val Val Glu Ser Lys Trp Arg Thr Leu Glu Ala Phe Trp  
176 725 730 735  
178 Ala Lys His Met Trp Asn Phe Ile Ser Gly Ile Gln Tyr Leu Ala Gly  
179 740 745 750  
181 Leu Ser Thr Leu Pro Gly Asn Pro Ala Ile Ala Ser Leu Met Ala Phe  
182 755 760 765  
184 Thr Ala Ser Ile Thr Ser Pro Leu Thr Thr Gln His Thr Leu Leu Phe  
185 770 775 780  
187 Asn Ile Leu Gly Gly Trp Val Ala Ala Gln Leu Ala Pro Pro Ser Ala  
188 785 790 795 800  
190 Ala Ser Ala Phe Val Gly Ala Gly Ile Ala Gly Ala Ala Val Gly Ser  
191 805 810 815  
193 Ile Gly Leu Gly Lys Val Leu Val Asp Ile Leu Ala Gly Tyr Gly Ala  
194 820 825 830  
196 Gly Val Ala Gly Ala Leu Val Ala Phe Lys Val Met Ser Gly Glu Met  
197 835 840 845  
199 Pro Ser Thr Glu Asp Leu Val Asn Leu Leu Pro Ala Ile Leu Ser Pro  
200 850 855 860  
202 Gly Ala Leu Val Val Gly Val Val Cys Ala Ala Ile Leu Arg Arg His  
203 865 870 875 880  
205 Val Gly Pro Gly Glu Gly Ala Val Gln Trp Met Asn Arg Leu Ile Ala  
206 885 890 895  
208 Phe Ala Ser Arg Gly Asn His Val Ser Pro Thr His Tyr Val Pro Glu  
209 900 905 910  
211 Ser Asp Ala Ala Ala Arg Val Thr Gln Ile Leu Ser Ser Leu Thr Ile  
212 915 920 925  
214 Thr Gln Leu Leu Lys Arg Leu His Gln Trp Ile Asn Glu Asp Cys Ser  
215 930 935 940  
217 Thr Pro Cys Ser Gly Ser Trp Leu Arg Asp Val Trp Asp Trp Ile Cys

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218	945	950	955	960
220	Thr Val Leu Thr Asp Phe Lys Thr Trp	Leu Gln Ser Lys Leu	Leu Pro	
221	965	970	975	
223	Arg Leu Pro Gly Val Pro Phe Ser Cys	Gln Arg Gly Tyr	Lys Gly	
224	980	985	990	
226	Val Trp Arg Gly Asp Gly Ile Met Gln	Thr Thr Cys Pro Cys	Gly Ala	
227	995	1000	1005	
229	Gln Ile Thr Gly His Val Lys Asn Gly	Ser Met Arg Ile Val	Gly Pro	
230	1010	1015	1020	
232	Arg Thr Cys Ser Asn Thr Trp His Gly	Thr Phe Pro Ile Asn	Ala Tyr	
233	1025	1030	1035	1040
235	Thr Thr Gly Pro Cys Thr Pro Ser Pro	Ala Pro Asn Tyr	Ser Arg Ala	
236	1045	1050	1055	
238	Leu Trp Arg Val Ala Ala Glu Glu	Tyr Val Glu Val	Thr Arg Val Gly	
239	1060	1065	1070	
241	Asp Phe His Tyr Val Thr Gly Met Thr	Asp Asn Val Lys	Cys Pro	
242	1075	1080	1085	
244	Cys Gln Val Pro Ala Pro Glu Phe	Phe Thr Glu Val	Asp Gly Val Arg	
245	1090	1095	1100	
247	Leu His Arg Tyr Ala Pro Ala Cys	Lys Pro Leu Leu	Arg Glu Glu Val	
248	1105	1110	1115	1120
250	Thr Phe Leu Val Gly Leu Asn Gln	Tyr Leu Val Gly	Ser Gln Leu Pro	
251	1125	1130	1135	
253	Cys Glu Pro Glu Pro Asp Val Ala Val	Leu Thr Ser Met	Leu Thr Asp	
254	1140	1145	1150	
256	Pro Ser His Ile Thr Ala Glu Thr Ala	Lys Arg Arg	Leu Ala Arg Gly	
257	1155	1160	1165	
259	Ser Pro Pro Ser Leu Ala Ser Ser Ser	Ala Ser Gln	Leu Ser Ala Pro	
260	1170	1175	1180	
262	Ser Leu Lys Ala Thr Cys Thr Thr Arg	His Asp Ser Pro Asp	Ala Asp	
263	1185	1190	1195	1200
265	Leu Ile Glu Ala Asn Leu Leu Trp Arg	Gln Glu Met Gly	Gly Asn Ile	
266	1205	1210	1215	
268	Thr Arg Val Glu Ser Glu Asn Lys	Val Val Ile Leu	Asp Ser Phe Glu	
269	1220	1225	1230	
271	Pro Leu Gln Ala Glu Glu Asp Glu Arg	Glu Val Val	Ser Val Pro Ala Glu	
272	1235	1240	1245	
274	Ile Leu Arg Arg Ser Arg Lys Phe Pro	Arg Ala Met Pro	Ile Trp Ala	
275	1250	1255	1260	
277	Arg Pro Asp Tyr Asn Pro Pro Leu Leu	Glu Ser Trp Lys	Asp Pro Asp	
278	1265	1270	1275	1280
280	Tyr Val Pro Pro Val Val His Gly	Cys Pro Leu Pro	Pro Ala Lys Ala	
281	1285	1290	1295	
283	Pro Pro Ile Pro Pro Arg Arg Lys	Arg Thr Val Val	Leu Ser Glu	
284	1300	1305	1310	
286	Ser Thr Val Ser Ser Ala Leu Ala Glu	Leu Ala Thr	Lys Thr Phe Gly	
287	1315	1320	1325	
289	Ser Ser Glu Ser Ser Ala Val Asp Ser	Gly Thr Ala	Thr Ala Ser Pro	
290	1330	1335	1340	

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292 Asp Gln Pro Ser Asp Asp Gly Asp Ala Gly Ser Asp Val Glu Ser Tyr  
 293 1345 1350 1355 1360  
 295 Ser Ser Met Pro Pro Leu Glu Gly Glu Pro Gly Asp Pro Asp Leu Ser  
 296 1365 1370 1375  
 298 Asp Gly Ser Trp Ser Thr Val Ser Glu Ala Ser Glu Asp Val Val  
 299 1380 1385 1390  
 301 Cys Cys Ser Met Ser Tyr Thr Trp Thr Gly Ala Leu Ile Thr Pro Cys  
 302 1395 1400 1405  
 304 Ala Ala Glu Glu Thr Lys Leu Pro Ile Asn Ala Leu Ser Asn Ser Leu  
 305 1410 1415 1420  
 307 Leu Arg His His Asn Leu Val Tyr Ala Thr Thr Ser Arg Ser Ala Ser  
 308 1425 1430 1435 1440  
 310 Leu Arg Gln Lys Lys Val Thr Phe Asp Arg Leu Gln Val Leu Asp Asp  
 311 1445 1450 1455  
 313 His Tyr Arg Asp Val Leu Lys Glu Met Lys Ala Lys Ala Ser Thr Val  
 314 1460 1465 1470  
 316 Lys Ala Lys Leu Leu Ser Val Glu Glu Ala Cys Lys Leu Thr Pro Pro  
 317 1475 1480 1485  
 319 His Ser Ala Arg Ser Lys Phe Gly Tyr Gly Ala Lys Asp Val Arg Asn  
 320 1490 1495 1500  
 322 Leu Ser Ser Lys Ala Val Asn His Ile Arg Ser Val Trp Lys Asp Leu  
 323 1505 1510 1515 1520  
 325 Leu Glu Asp Thr Glu Thr Pro Ile Asp Thr Thr Ile Met Ala Lys Asn  
 326 1525 1530 1535  
 328 Glu Val Phe Cys Val Gln Pro Glu Lys Gly Gly Arg Lys Pro Ala Arg  
 329 1540 1545 1550  
 331 Leu Ile Val Phe Pro Asp Leu Gly Val Arg Val Cys Glu Lys Met Ala  
 332 1555 1560 1565  
 334 Leu Tyr Asp Val Val Ser Thr Leu Pro Gln Ala Val Met Gly Ser Ser  
 335 1570 1575 1580  
 337 Tyr Gly Phe Gln Tyr Ser Pro Gly Gln Arg Val Glu Phe Leu Val Asn  
 338 1585 1590 1595 1600  
 340 Ala Trp Lys Ala Lys Lys Cys Pro Met Gly Phe Ala Tyr Asp Thr Arg  
 341 1605 1610 1615  
 343 Cys Phe Asp Ser Thr Val Thr Glu Asn Asp Ile Arg Val Glu Glu Ser  
 344 1620 1625 1630  
 346 Ile Tyr Gln Cys Cys Asp Leu Ala Pro Glu Ala Arg Gln Ala Ile Arg  
 347 1635 1640 1645  
 349 Ser Leu Thr Glu Arg Leu Tyr Ile Gly Gly Pro Leu Thr Asn Ser Lys  
 350 1650 1655 1660  
 352 Gly Gln Asn Cys Gly Tyr Arg Arg Cys Arg Ala Ser Gly Val Leu Thr  
 353 1665 1670 1675 1680  
 355 Thr Ser Cys Gly Asn Thr Leu Thr Cys Tyr Leu Lys Ala Ala Ala  
 356 1685 1690 1695  
 358 Cys Arg Ala Ala Lys Leu Gln Asp Cys Thr Met Leu Val Cys Gly Asp  
 359 1700 1705 1710  
 361 Asp Leu Val Val Ile Cys Glu Ser Ala Gly Thr Gln Glu Asp Glu Ala  
 362 1715 1720 1725  
 364 Ser Leu Arg Ala Phe Thr Glu Ala Met Thr Arg Tyr Ser Ala Pro Pro

VERIFICATION SUMMARY  
PATENT APPLICATION: US/09/576,989

DATE: 05/31/2000  
TIME: 17:07:56

Input Set : A:\60294356.txt  
Output Set: N:\CRF3\05312000\I576989.raw

L:10 M:270 C: Current Application Number differs, Replaced Application Number  
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date